1/2 018 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--SURFACE TENSION OF KRYPTON, METHANE, DEUTEROMETHANE, AND OXYGEN -U-

AUTHOR-(04)-BLAGOY, YU.P., KIREYEV, V.A., LOBKO, M.P., PASHKOV, V.V.

COUNTRY OF INFO--USSR

SOURCE--UKR. FIZ. ZH. (RUSS. ED.) 1970, 15(3), 427-32

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SURFACE TENSION, KRYPTON, METHANE, OXYGEN, DEUTERIUM COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/0948 STEP NO--UR/0185/70/015/003/0427/0432

CIRC ACCESSION NO--AP0136379

UNCLASSIFIED

2/2 018 UNCLASSIFIED PROCESSING DATE--04DEC70
CIRC ACCESSION NO--AP0136379
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DIFFERENTIAL METHOD OF CAPILLARY RISE WAS USED TO DET. THE TEMP. DEPENDENCE OF THE SURFACE TENSION, SIGMA, FOR KR, CH SUB4, CO SUB4 AND O SUB2 OVER THE ENTIRE RANGE OF TEMPS. AT WHICH THEY EXIST IN THE LIQ. FORM. THE RESULTS ARE TABULATED AND SHOWN GRAPHICALLY ALONG WITH THE OTHER EXPTL. DATA. THE RESULTS CAN BE DESCRIBED BY THEVAN DER WAALS EQUATION. THE DEVIATIONS WERE DISCUSSED FROM THE LAW OF CORRESPONDING STATES FOR A LARGE NO. OF SUBSTANCES AND THE REASONS FOR THE DEVIATIONS WERE CONSIDERED.
FACILITY: FIZ. TEKH. INST. NIZKIKH TEMP., KHARKOV, USSR.

UNCLASSIFIED

USSR

UDC 533.6.011

KIREYEV, V. T.

"Gas Flow When an Oscillating Cylinder Is Set Into Motion at a High Supersonic Velocity"

V sb. Materialy Vses. konferentsii po krayev, zadacham (Materials of the All-Union Conference on Boundary Value Problems--collection of works), Kazan', Kazan' Univ., 1970, pp 131-135 (from RZh-Mekhanika, No 12, Dec 70, Abstract No 12B302, by A. I. Bunimovich)

Translation: The plane problem of the nonsteady motion of gas in the region between a right cylinder (travelling at hypersonic velocity U_∞ and executing periodic oscillations at a rate $V_\infty \ll U_\infty$ perpendicular to the direction of travel) and the shock wave induced forward of the cylinder is examined. The solution is arrived at in a linear formulation (at small angles ϑ measured from the direction of U_∞

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USSR

UDC 541.26'.118

VOLODIN, A. A., KIREYEV, V. V., KORSHAK, V. V., and FOMIN, A. A.

"Synthesis and Investigation of Pentaarylhydroxyhydroxydialkoxyphosphazocyclotriphosphazotrienes"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 10, Oct 73, pp 2206-2211

Abstract: A series of pentaarylhydroxyaminocyclotriphosphazotrienes has been synthesized and converted to respective trichlorophosphazo-compounds by Kirsonov reaction; alcoholysis of the latter gave a series of pentaarylhydroxyhydroxydialkoxyphosphazocyclotriphosphazotrienes (I). The structure of the compounds synthesized was proposed on the basis of IR and NMR ^{31}P spectral data. A correlation has been shown to exist between the pKa values of (I) in alcohol and Taft's σ^* constants of the alkyl substituents. The substituents at the phenyl ring showed no effect on the value of pKa.

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USSR

UDC 541.26.118

VOLODIN, A. A., KIREYEV, V. V., FOMIN, A. A., YEDELEV, M. G., and KORSHAK, V. V., Corresponding Member Academy of Science USSR, Moscow, Chemico-Technological Institute imeni D. I. Mendeleev, Moscow

"Synthesis and Study of Pentaaryloxyfluorocyclotriphosphazotrienes"

Moscow, Doklady Akademii Nauk SSSR, Vol 209, No 1, 1973, pp 98-100

Abstract: Pentaaryloxychlorocyclotriphosphazotrienes (I) with aryl groups RH_4C_6, where R = H, p-MeO, p-Me, m-MeO, m-Me, were prepared according to E. T. MeBee et al., Inorg. Chem., 5, 450, 1966. By treating compounds I with potassium fluorosulfinate in O_2NPh, the corresponding nonofluoro derivatives (II) were prepared : $P_3N_3(OC_6H_4R)_5Cl + KSO_2F \rightarrow P_3N_3(OC_6H_4R)_5F + KCl + SO_2$. KSO_2F was obtained by treating KF with liquid SO_2. The physical properties of compounds II were determined (table) and their nuclear (^{31}P and ^{19}F) magnetic resonance spectra studied.

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USSR

UDC 546.185:547.245

TELKOVA, I. B., KIREYEV, V. V., KORSHAK, V. V., VOLODIN, A. A., and FOMIN, A. A.

"Synthesis and Study of Arylhydroxycyclotriphosphazotrienes"

Leningrad, Zhurnal Obshchey Khimii, Vol 43, (105), No 6, Jun 73, pp 1157-1161

Abstract: Pentaarylhydroxychlorocyclotriphosphazotrienes and hexaarylhydroxycyclotriphosphazotrienes were synthesized by the reaction of the respective sodium phenoxides with hexachlorocyclotriphosphazotriene in acetone or tetrahydrofurane. The structures of all derivatives obtained were supported by IR, UV and NMR ^{31}P spectra.

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USSR UDC 547.26'11

SARTANIYA, V. G., KIREYEV, V. V., and KORSHAK, V. V., Moscow Chemical-Technological Institute Imeni D. I. Mendeleyev

"Butoxychlorocyclotriphosphazotrienes"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 3, Mar 73, p 681

Abstract: The synthesis of tetra- and pentabutoxydichlorocyclotriphosphazotrienes [TBP and PBP respectively] was carried out by treatment of hexachlorocyclotriphosphazotriene with sodium butoxide in tetrahydrofurane at low temperature. The following constants were determined: TBP -- d_4^{20} 1.3540, n_D^{22} 1.4720; PBP -- d_4^{20} 1.5535, and n_D^{22} 1.4618.

USSR

UDC 621.315.592

KIRILYUK, L.V., RYUMIN, V.P.

"Forming Of Semiconductor Layers Of SnO_2 Produced By The Aerosol Method On K8 Glass"

Dielektriki. Mezhved. nauch.sb. (Dielectrics. Interdepartmental Scientific Collection), 1972, Issue 2, pp 115-119 (from RZh:Elektronika i yeye primeneniye, No 9, Sept 1972, Abstract No 9B127)

Translation: The paper considers the conditions of forming a thin-layered covering on the surface of K8 glass, and the effect of the temperature of the glass substrate, the dimensions of the aerosol particles of stannic chloride [khlornoye olovo], and the concentration of the doping admixture NH_4F on the structurization of the covering. It is established that in order to procure SnO_2 layers with a transparency of 79-88 percent, the temperature of the K8 glass must not exceed 530° C, and the dimensions of the aerosol particles of stannic chloride 0.04--0.15 micron, and the concentration of NH_4F, 1--2 percent. Summary.

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USSR

UDC 547.26'118

SHOKOL, V. A., KOZHUSHKO, B. N., and KIRSANOV, A. V., Institute of Organic Chemistry, Academy of Sciences, UkrainianSSR

"Reaction of Trichloromethylisocyanate With Triethylphosphite"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 3, Mar 73, pp 544-551

Abstract: Reaction of trichloromethylisocyanate with one mole of triethylphosphite yields 10-20% of diethoxyphosphonyldichloromethylisocyanate regardless of the reaction conditions. In most cases also 20-40% of bis-(diethoxyphosphonyl)chloromethylisocyanate is obtained and occasionally 5-10% of triethylphosphate. Increasing the amount of triethylphosphite to two and three moles gives bis(diethoxyphosphonyl)chloromethylisocyanate and tris(diethoxyphosphonyl)methylisocyanate respectively plus admixtures of triethylphosphate and tetraethylpyrophosphate. Increasing triethylphosphite to four moles increases the yield of the tris(diethoxyphosphonyl)methylisocyanate to 40%. Thus it has been shown that the trichloromethyl group may participate in Arbuzov reaction replacing all three chlorine atoms by phosphorus containing radicals. A novel compound has been synthesized containing an isocyanate group and three phosphorus atoms at one carbon atom.

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USSR UDC 547.26'118

GUBNITSKAYA, Ye. S., TISHCHISHINA, N. S., and KIRSANOV, A. V., Institute of Organic Chemistry, Academy of Sciences, UkrainianSSR

"Derivatives of Dialkylphosphonic Acid Ethyleneamides"

Leningrad, Zhurnal Obshchey Khimii, Vol 42 (105), No 4, Apr 73, pp 739-743

Abstract: Reaction of phosgene with ethyleneamides of dialkylphosphoric acids leads to the formation of N-dialkylphosphono-N-(2-chloroethyl)carbaminic acid chlorides which react with ammonia, amines, potassium salt of diisopropylthiolthionephosphoric acid, and sodium azide to yield respective derivatives. N-Dialkylphosphonoimidazolidenones-2 can be obtained by reacting N-dialkyl-phosphono-N-(2-chloroethyl)ureas with a base.

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USSR

UDC 621.313.333:538.4

BARANOV, G. A., KIRILLOV, I. R., and OGORODNIKOV, A. P.

"Hydraulic Characteristics of an Experimental Active-Type, Molten Metal MHD Generator Channel"

Riga, Magnitnaya Gidrodinamika, No 4, Oct-Dec 72, pp 112-114

Abstract: The hydraulic characteristics of a slotted channel of a molten metal MHD generator of the active type with an expansion angle of 12° 30' are presented as well as the distribution of static pressures along the length of the channel without a magnetic field and during interaction of the flux with the traveling magnetic field. Channel tests showed that the hydraulic properties of the flow tract were fully satisfactory and disruption of flow from the walls of the channel does not occur for a large change in the Reynolds' number. 2 figures, 3 bibliographic references.

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USSR UDC 547.558.1

KIREYEV, V. V., KORSHAK, V. V., ERYAN, M. A., and MINAS'YAN, R. M., Moscow Chemical Technological Institute Imeni D. I. Mendeleyev

"Aromatic Bisphosphazo Compounds"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 2, Feb 73, pp 434-435

Abstract: A new synthetic route was proposed for 1,4-bis(triphenylphosphazo)-benzene (I) and tetraphenyl-p-phenylene-bis(phosphazophenyl) (II) based on the Kirsanov reaction. The phosphazo reaction was carried out in refluxing anhydrous xylene using excess diphenyltrichlorophosphorus in the synthesis of (I) and an excess of aniline hydrochloride during the synthesis of (II).

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USSR UDC 546.185

TELEGIN, G. F., KIREYEV, V. V., KORSHAK, V. V.

"Bis(o-Phenylenediamino)cyclotriphosphazotrienes"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 7, Jul 72, pp 1499-1502

Abstract: Heterocyclic compounds were synthesized from o-phenylenediamine and geminally substituted chlorocyclotriphosphazotrienes -- 1,1-diphenyltetrachlorocyclotriphosphazotriene and 1,1-diaminotetrachlorocyclotriphosphazotriene. The process was carried out in anhydrous solvents, using triethyl amine or pyridine as hydrogen chloride acceptors. The corresponding bis(o-phenylenediamino)cyclotriphosphazotrienes were identified.

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USSR

UDC 546.185+547.245

VOLODIN, A. A., ZELENETSKIY, S. N., KIREYEV, V. V., KORSHAK, V. V.,

"Synthesis of Acid Cyclolinear Aryloxyphosphazenes"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 7, Jul 72, pp 1506-1508

Abstract: Aryloxy phosphazenes were synthesized by reacting the corresponding sodium phenoxides with 2,2'-bis(hydroxydichlorophosphazene)tetrachlorocyclotriphosphazotriene in tetrahydrofuran. The resultant products are colored amorphous solids or very viscous resins. The reaction constants of the aryloxyphosphazenes in ethyl alcohol were determined, and it was shown that the values of pK_a correlate with the induction constants for para- and meta-substituted phenyls.

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UDC 546.185+547.245

USSR

VOLODIN, A. A., KIRYEV, V. V., KORSHAK, V. V., FILIPPOV, YE. A., CHUKOVA, V. M.

"Synthesis of Cyclolinear Alkoxyphosphazenes and an Investigation of Their Reaction with Triphenylchlorosilane"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 7, Jul 72, pp 1503-1506

Abstract: Alkoxy derivatives of cyclolinear type were synthesized by alcoholysis of 2,2'-bis(trichlorophosphazene)tetrachlorocyclotriphosphazotylene in the presence of triethyl amine. The resultant alkoxyphosphazenes are yellowish liquids. The alkoxyphosphazenes react with triphenylchlorosilane when heated above 90°C with release of alkyl chloride and formation of the corresponding siloxy derivative. The reaction products from equimolecular quantities of initial reagents are brown viscous liquids which dissolve in benzene. Analysis of the conditions of the reaction and kinetic data indicate that replacement of the alkyl groups by the triphenylsilyl group takes place in the side chain.

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UDC 547.26'118

USSR

VOLODIN, A. A., KIREYEV, V. V., KORSHAK, V. V., and FILIPPOV, Ye. A.

"Synthesis and Investigation of Alkoxytriphosphazophosphonyls"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 3, Mar 72, pp 510-514

Abstract: The authors synthesized and studied alkoxy derivatives of the following member of the homologous series of linear alkoxyphosphazines -- $HO[P(OR)_2{=}N]_nP(O)(OR)_2$ (n = 1 and 2). The compounds were synthesized by alcoholysis of heptachlorotriphosphazodichlorophosphonyl in the presence of triethylamine.

$$Cl(PCl_2{=}N)_3P(O)Cl_2 + ROH \xrightarrow{N(C_2H_5)_3} HO[(RO)_2P{=}N]_3P(O)(OH)_2$$

The resultant alkoxytriphosphazophosphonyls are brown viscous oils with a faint odor. Some of the physical and chemical properties of the compounds are tabulated. A study of the kinetics of the reaction between alkoxytriphosphazophosphonyls and triphenylchlorosilane shows that the reaction mechanism is close to that previously proposed for imidodiphosphoric acid and alkoxydiphosphazophosphonyls, and includes a stage of ionization of the P-O-C bond with formation of a carbonium ion which attacks the chlorosilane molecule. One table, two figures, bibliography of four titles.

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UDC 547.26'118

USSR

KIREYEV, V. V., KOLESNIKOV, G. S., and TITOV, S. S., Moscow Chemical-Technical Institute imeni D. I. Mendeleyev

"The Reaction of Tetraalkyl Esters of Imidodiphosphoric Acid with Triorganchalosilanes"

Leningrad, Zhurnal Obshchey Khimii, Vol XL, No 12, Dec 70, pp 2634-2642

Abstract: It is shown that the reaction of tetraalkyl esters of imidodiphosphoric acid with chlorosilanes leads to the formation of products with P-O-Si bonds. The overall reaction follows first order kinetics -- first order with respect to the ester, zero order with respect to the chlorosilance.

On the basis of study of the infrared, ultraviolet and nuclear magnetic resonance spectra, it was established that the initial substances form a complex.

The most probable mechanism is suggested for the reaction which proceeds with ionization of the bond POR.

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UDC 546.185+547.245

USSR

KIREYEV, V. V., KOLESNIKOV, G. S. (deceased), RAYGORODSKIY, I. M., and OKULEVICH, P. O., Moscow Institute of Chemical Technology imeni D. I. Mendeleyev

"Reaction of Alkoxycyclophosphazenes With Chloromethylorganosilanes"

Leningrad, Zhurnal Obshchey Khimii, Vol 41 (103), No 4, Apr 71, pp 792-797

Abstract: The reaction course was measured by the amount of the chloride evolved butyl. The following starting materials were used: hexabutoxycyclotriphosphazotriene, triphenoxytributoxycyclotriphosphazotriene, chloromethyltributoxysilane, chloromethylmethyldibutoxysilane, chloromethylmethylphenylsilane, and chloromethyltributylsilane. The products were shown to contain the P-O-$CH_2Si\equiv$ group. It was proposed that the reaction takes place via ionization of the P-O-R bond in alkoxycyclophosphazene followed by a nucleophilic attack of the phosphazonium ion on chloromethyltriorganosilane.

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UDC 547.26'118

USSR

KIREYEV, V. V., KOLESNIKOV, G. S. (DECEASED), TITOV, S. S., Moscow Institute of Chemical Technology imeni D. I. Mendeleyev, Moscow, Ministry of Higher and Secondary Specialized Education RSFSR

"Esters of Imidodiphosphoric Acid"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 9, Sep 70, pp 2015-2019

Abstract: Reacting trichlorophosphazodichlorophosphonyl with alcohols and alkoxides gave a series of novel esters of imidodiphosphoric acid. To freshly prepared sodium butoxide in anhydrous dioxane, trichlorophosphazodichlorophosphonyl (I) in benzene was added with stirring. The precipitated NaCl was filtered off, the solvents were evaporated, and the residue was extracted with petroleum ether, washed, and dried, and the solvent was evaporated to give tributoxyphosphazodibutoxyphosphonyl, n_D^{20} 1.4460, d_4^{20} 1.0611. To obtain the tetrabutyl ester of imidodiphosphonic acid, (I) in benzene was added to a mixture of absolute butyl alcohol and triethylamine in petroleum ether with stirring at a rate permitting the

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USSR

KIREYEV, V. V., et al, Zhurnal Obshchey Khimii, Vol 40, No 9, Sep 70, pp 2015-2019

temperature to be kept at +5°. Then the mixture was kept at room temperature for 2 days, the precipitated triethylamine salt was filtered off, and the solvent distilled at a temperature below 80°. The residue was dissolved in petroleum ether and chromatographed over neutral alumina.

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1/2 006 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--AMMONOLYSIS OF PHOSPHORUS PENTACHLORIDE BY AMMONIUM CHLORIDE IN THE PRESENCE OF PYRIDINE -U-

AUTHOR-(04)-ZHIVUKHIN, S.M., KIREYEV, V.V., POPILIN, V.P., KOLESNIKOV, G.S.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(5), 1229-33

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--AMMONOLYSIS, PHOSPHORUS CHLORIDE, PYRIDINE, AMMONIUM CHLORIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3008/0937 STEP NO--UR/0078/70/015/005/1229/1233

CIRC ACCESSION NO--AP0137965

UNCLASSIFIED

2/2 006 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0137965

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A 65PERCENT YIELD OF CHLOROPHOSPHAZENES (I), (PNCL SUB2)SUBN, FORMED WITHIN A FEW MIN IN THE REACTION OF PCL SUB5 WITH NH SUB4 CL IN MIXT. CONTG. 4 MOLES PYRIDINE PER MOLE OF PCL SUB5. IN THE PRESENCE OF AN INERT SOLVENT, SUCH AS PHCL, THE REACTION WAS SLOWER BUT THE YIELD OF CRYST. I WAS 80-5PERCENT WITHIN 5-8 HR.

UNCLASSIFIED

USSR UDC 547.1'118+541.124

KIREYEVA, A. Ya., ZHADANOV, B. V., SIDORENKO, V. V., and DYATLOVA, N. M.,

"Synthesis and Study of the Acid Dissociation of N-Carboxymethyl-N,N-bis (methylenephosphonic) Acid"

Leningrad, Zhurnal Obshchey Khimii, Vol 43, No 11, Nov 73, pp 2508-2511

Abstract: N-Carboxymethyl-N,N-bis(methylenephosphonic) acid $HOOCH_2CN.(CH_2PO_3H_2)_2$ (I; H_5L) was synthesized by the interaction of glycine, formalin, and phosphorous acid in the presence of HCl (cf. K. Moedritzer and R. R. Irani, J. Org. Chem., 31, 1603, 1966). The distribution of various dissociated forms of H_5L (H_4L^-, $H_3L^{=}$, H_2L^{3-}, HL^{4-}, L^{5-}) in relation to the pH at pH 1-12 was studied by IR spectroscopy. On the basis of the data obtained, a mechanism of the dissociation of I is proposed.

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USSR UDC 547.1'118-386:543

KIREYEVA, A. YU., SHUGAL, N. P., and DYATLOVA, N. M., All Union Scientific Research Institute of Chemical Reagents and Ultra Pure Chemical Compounds

"Reaction of Trivalent Iron with Glycine-N,N-bis(methylenephosphonic) Acid"

Moscow, Zhurnal Neorganicheskoy Khimii, Vol 18, No 10, Oct 73, pp 2685-2691

Abstract: An investigation has been carried out of the complex formation of glycine-N,N-bus(methylenephosphonic) acid with iron (III). Formation of stable, water soluble, normal and hydroxylated complexes of the general composition Me:K = 1:1 has been shown to take place by means of pH-metry and high frequency titration. Their stability constants have been calculated. It has been shown that the proton located on the nitrogen atom is the most basic one and dissociates last. The composition of an insoluble iron complex ($pH < 4.5$) has been determined by the turbidimetric method. The structure H_2 FeL.$3H_2O$ being proposed on the basis of IR spectrophotometric data.

Thermal stability of the solid complex has been investigated.

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USSR

UDC 546.33:547.468.32.024'212

BIKHMAN, B. I., URINOVICH, E. M., KIREEVA, A. YU., SHUGAL, N. F., DYATLOVA, N. M. (All-Union Scientific Research Institute of Chemical Reagents and Especially Pure Chemical Substances (IREA)

"Study of Hydroxyethylindenediphosphonic Acid and Its Sodium Salt"

Moscow, Zhurnal Neorganicheskoi Khimii, vol 18, No 9, Sept 1973, pp 2406-2409

Abstract: The trisodium salt of hydroxyethylindenediphosphonic acid was prepared by adding NaOH to an aqueous solution of the free acid (synthesis of acid is referenced) in distilled water, cooled by ice. Chemical analysis of the salt verified its elemental composition, and IR absorption spectra confirmed the structure of the free acid and the salt. Potentiometric titration showed two protons in the salt and five in the acid. The acid loses its water of crystallization (0.5 H_2O) in one step at 76°C, while the salt loses 2 molecules at 116°C and the other 2.5 at 190°C. In aqueous solution the salt has a neutral pH and is recommended as a complexing agent at this pH.

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USSR

UDC 542.941:546.791.6'161

KIREYEVA, G. N., SAVEL'YEVA, V. I., and GROMOV, B. V.

"Photochemical Reduction of Uranyl Fluoride With Ethanol"

Leningrad, Radiokhimiya, Vol 13, No 6, 1971, pp 906-909

Abstract: Reduction of uranyl ion with organic reducing agents was studied in fluoride medium under the influence of UV light. It was determined that out of a series of organic compounds the isopropyl alcohol and ethanol were the best reducing agents, the acetaldehyde and acetic acid -- the worst. The rate of photochemical reduction of uranyl ion depends on the quantity of organic reducing agent; for one mole of uranyl fluoride a 10 fold excess of isopropanol is required, 15 fold excess of ethanol, and 25 fold excess of methanol. The temperature has an inverse effect -- the higher the temperature the lower the quantity of reduced uranium. The reaction has a first order equation in respect to the uranium. The apparent reaction rate constants and energy of activation have been calculated.

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1/2 018 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--RESISTANCE OF THE POROUS STRUCTURE OF SILICA GELS PREPARED FROM CONCENTRATED AQUEOUS SOLS OF SILICIC ACID TO THERMAL TREATMENT -U-

AUTHOR--BELOTSERKOVSKIY, G.M., DOBRUSKIN, V.KH., KIREYEVA, G.YE., PLACHENOV, T.G.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. KHIM. (LENINGRAD) 1970, 43(2), 445-7

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SILICA GEL, ISOTHERM, GAS ADSORPTION, VAPOR STATE, SOLUTION CONCENTRATION, AQUEOUS SOLUTION, BENZENE, POROSITY, THERMAL EFFECT, VACUUM CHABER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1983/0920 STEP NO--UR/0080/70/043/002/0445/0447

CIRC ACCESSION NO--AP0053844

UNCLASSIFIED

2/2 018 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0053844

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ADSORPTION QUALITY OF 2 BRANDS OF SILICA GEL WHICH WERE HEATED TO 200, 550, AND 750DEGREES WAS TESTED BY TAKING THE ADSORPTION ISOTHERMS OF C SU96 H SUB6 VAPOR AT 20DEGREES AND OF N AT MINUS 196DEGREES BY MEANS OF A QUARTZ COIL IN A VACUUM CHAMBER EQUIPPED WITH A BALANCE. THE QUALITY OF THE GEL AT ELEVATED TEMPS. AND ITS RESULTING POROUS STRUCTURE DEPEND MAINLY ON THE AMT. OF RESIDUAL ALKALIES IN SILICA GEL FROM THE MANUFACTURING PROCESS. WHEN THE ALKALIES WERE WASHED WITH HCL AND H SU92 O, THE POROSITY AFTER HEAT TREATMENT WAS BEST. THE RESULTS OBTAINED WERE VERIFIED BY MEASUREMENTS OF D. AND OF SP. SURFACE.

UNCLASSIFIED

1/2 037 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--SOLUTION OF UNIDIMENSIONAL PROBLEMS OF GAS DYNAMICS IN MOVING NETWORKS -U-
AUTHOR-(04)-ALALYKIN, G.B., GODUNOV, S.K., KIREYEVA, I.L., PLINER, L.A.

COUNTRY OF INFO--USSR

SOURCE--RESHENIYE ODNOMERNYKH ZADACH GAZOVOY DINAMIKI V PODVIZHNYKH SETKAKH, MOSCOW, NAUKA, 1970, 110 PP
DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--GAS DYNAMICS, PLASMA SHOCK WAVE, ELECTRODE PROPERTY, DIFFERENCE METHOD, MONOGRAPH

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1985/0779 STEP NO--UR/0000/70/000/000/0001/0110

CIRC ACCESSION NO--AM0101153
UNCLASSIFIED

2/2 037 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AM0101153

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TABLE OF CONTENTS: PREFACE 5. CHAPTER I DIFFERENCE DIAGRAMS 7. II DISCONTINUITY DECOMPOSITIONS 67. APPENDIX I CALCULATION OF FORMATION OF A SHOCK WAVE FORMING IN INTERSECTING CHARACTERISTICS 90. II MECHANICAL EFFECTS ON AN ELECTRODE IN ACCUMULATION OF PLASMA ON THE AXIS 93. APPENDIX III 99. BIBLIOGRAPHY 112.

UNCLASSIFIED

USSR

UDC 546.824'171.1:541.67

AYVAZOV, M. I., DOMASHNEV, I. A. and KIREYEVA, I. M., Institute for New Problems, Academy of Sciences USSR

"Electric Properties of $TiN_{0.96}$, $TiB_{0.43}N_{0.78}$ and $TiSi_{0.51}N_{0.42}$"

Moscow, Izvestiya Akademii nauk SSSR, Neorganicheskiye materialy, Vol 7, No 10, Oct 71, pp 1739-1742

Abstract: The study of the electric conductivity, thermal emf, and Hall effect of isostructural compounds (NaCl-type structure) of $Ti_{0.96}$ and $TiB_{0.43}N_{0.78}$ over a wide temperature range has shown the need of an energy scheme of overlapping zones to explain the charge transfer process in the carriers. Substituting boron for nitrogen reduces the degree of fullness. The electrophysical properties of $TiSi_{0.51}N_{0.42}$ compounds (NaCl-type structure) at high temperatures may be ascribed as semiconductor-type compounds with a forbidden zone width of 0.4 ev. The conductivity, thermal emf, and Hall effect were studied on hot-formed specimens with 5-8% porosity. The former two properties were measured within 300-1600°K, while the Hall effect -- within 300-1000°K. Temperature-property relationships are

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- USSR

AYVAZOV, M. I., et al, Izvestiya Akademii nauk SSSR, Neorganicheskiye materialy, Vol 7, No 10, Oct 71, pp 1739-1742

presented in curves. The source products for the study were $TiCl_4$, BCl_3, $SiHCl_3$, H_2, and especially pure N_2. (2 illustrations, 1 table, 9 bibliographic references).

2/2

USSR

UDC 546'821'27'17:538.214

AYVAZOV, M. I., GUROV, S. V., DOMASHNEV, I. A., and KIREYEVA, L. M., Institute of New Chemical Problems of the Academy of Sciences USSR

"Investigation of Magnetic Properties of Variable Composition Phases of Titanium Nitride, Titanium Diboride, and Alloys in the Ti — B — N System"

Moscow, Izvestiya Akademii Nauk SSSR, Neorganicheskiye Materialy, Vol 7, No 7, Jul 71, pp 1176—1179

Abstract : The magnetic susceptibility of alloys in the system Ti — B — N and of the variable composition phase $TiB_{2\pm x}$ were investigated in the temperature interval of 100—1300 °K. Demonstrated investigation results of the temperature dependence of the magnetic susceptibility show that the latter is characterized by temperature-independent high values of the susceptibility in the region of low temperatures. The susceptibility of two compositions TiN_{1-x} probably can be expressed by $\chi = \chi_d + \chi_c + \chi_o$, where χ_d=diamagnetism of the ionic hull, χ_c= Curie susceptibili-

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USSR

AYVAZOV, M. I., et al., Izvestiya Akademii Nauk SSSR, Neorganicheskiye Materialy, Vol 7, No 7, Jul 71, pp 1176-1179

ty, and χ_e=electron paramagnetism. The initial concentration of charge carriers (p-type) is on all TiB_2-compositions of the order 10^{21} cm^{-3}. The magnetic susceptibilities of TiN and T — B — N compositions show a notable effect of the crystalline lattice on the formation of "quasi-localized" electron conditions. The presence of a partially filled up 2p-zone effects an increased Pauli paramagnetism on TiB2-compositions at low temperatures and the appearance of two kinds of carriers at high temperatures. Four illustr., one table, eight biblio. refs.

2/2

Meteor.

KIREYEVA, N. M.

JPRS 54974
19 JAN 72

UDC 551.577.3

CHARACTERISTIC OF THE STATISTICAL PRECIPITATION FIELD INDEXES IN THE INTER-RELATION WITH SYNOPTIC CONDITIONS

[Article by A. A. Isayev, N. M. Kireyeva, Candidate of Physical and Mathematical Sciences, L. V. Litvinov, Institute of Experimental Meteorology; Moscow, Meteorologiya i Gidrologiya, Russian, No 11, 1971, submitted 28 December 1970, pp 27-31]

The coverage coefficients k_c (the ratio of the number of stations with precipitation to the total number of stations in the test area) and the variation coefficient C_v for precipitation caused by various synoptic situations in a test area 60 x 60 km^2 are calculated.

The parameters of precipitation fields interrelated with the characteristics of synoptic situations have been studied many times in various parts of the Earth [4, 5, 7]. It was discovered that the precipitation fields of various fronts and also the fields of intramass precipitation differ somewhat from each other. The field of precipitation caused by passage of warm fronts is most uniform, and the field of precipitation connected with cold fronts is least uniform [4, 7].

The results of the studies obtained in various climatic regions differ, in general, from each other, and the mechanical transfer of data from one area to another is not always justifiable.

At the present time, different criteria are used for the characteristics of precipitation nonuniformity depending on the stated problems. In a number of papers, the nonuniformity of the precipitation field is characterized by the spatial correlation function [2, 8]; in reference [4] it is characterized by the distribution curves of the areas occupied by precipitation of different amounts. In reference [7] the precipitation nonuniformity is characterized by the relative variability V, and in reference [1], by the coefficient of spatial variation C_v

$$V = \frac{\sum_{i=1}^{n} |x - x_i|}{nx} \cdot 100\%, \quad C_v = \frac{\sqrt{\sum_{i=1}^{n} (x - x_i)^2}}{x\sqrt{n-1}} \cdot 100\%,$$

1/2 011 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--YIELD OF CARBONIZATION PRODUCTS FROM HYDROCHLORIC ACID LIGNIN -U-

AUTHOR-(03)-MALAKHOV, G.A., PONOMAREVA, V.V., KIREYEVA, R.N.

COUNTRY OF INFO--USSR

SOURCE--GIDROLIZ. LESOKHIM. PROM. 1970, 23(2), 25-6

DATE PUBLISHED--------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, MATERIALS

TOPIC TAGS--LIGNIN, WOOD PRODUCT, THERMAL EFFECT, STAINLESS STEEL/(U)1KH18N9T STAINLESS STEEL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0971 STEP NO--UR/0328/70/023/002/0025/0026

CIRC ACCESSION NO--AP0124630

UNCLASSIFIED

2/2 011 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124630

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BIRCHWOOD AND PINEWOOD LIGNIN (I) SAMPLES WERE CARBONIZED IN A HEAT RESISTANT STEEL (1KH18N9T) RETORT AT 400-600DEGREES. A DIAGRAM OF THE CARBONIZATION APP. AND ITS MODE OF OPERATION ARE PRESENTED. THE YIELDS OF THE CARBONIZED I AND OF PYROLIGNEOUS DISTILLATE (II) ARE INVERSELY PROPORTIONAL TO THE TEMP. ELEVATION RATE. THE TOTAL YIELD OF CARBONIZED I PLUS GASES AND OF II PLUS CARBONIZED TARS WAS RELATIVELY CONST. AT A GIVEN TEMP.

FACILITY: KANSK. GIDROLIZ. ZAVOD, KANSK, USSR.

UNCLASSIFIED

USSR UDC 616.981.71-002.9-022.395.42-07:[616.152+616.632

KIREYEVA, R. Ya., Chinic of Infectious Diseases, Khabarovsk Medical Institute

"Electrolyte Metabolism in Tickborne Rickettsiosis Patients"

Moscow, Klinicheskaya Meditsina, No 12, 1971, pp 114-117

Abstract: Analysis of sodium, potassium, calcium, and magnesium levels in blood plasma of 60 persons with tickborne rickettsiosis of varying severity revealed pronounced hyponatremia, slight hyperkalemia and fluctuations of calcium and magnesium concentrations within normal limits. These changes were combined with low excretion of magnesium with urine and almost normal excretion of sodium and calcium; the potassium level was unaffected. The disturbances of electrolyte metabolism were most pronounced in the febrile period, especially in those with a severe or moderately severe course of the disease.

USSR

UDC 616.981.71-022.395.42-07:616.153.96-074

KIREYEVA, R. YA., Clinic of Infectious Diseases, Khabarovsk Medical Institute

"Serum Protein Fractions and Lipoproteins in Patients Afflicted With Tickborne Rickettsiosis"

Moscow, Klinicheskaya Meditsina, Vol 49, No 2, Feb 71, pp 117-120

Abstract: The blood serum content of total protein, protein fractions and lipoproteins in 62 patients 16-20 years of age were studied. The disease was severe in 10 patients, moderately severe in 40, and mild in 12 cases. The blood serum was studied between the third and 30th day of the disease. The total protein was determined by the Gachev modification of the Kingsley biuret method, and the protein fractions and lipoproteins were determined by paper electrophoresis. The data obtained were subjected to the statistical variation method. The results of the study indicated that hypoalbuminemia, hyperalphabeta-, and gammaglobulinemia were the most predominant characteristic of disproteinemia in patients with tickborne rickettsiosis. The lipoprotein content underwent significant changes during the febrile period. The indices of disproteinemia correspond to the severity of the disease and may be used for assessing the state of a patient as well as the design of an effective therapy.

1/1

USSR UDC 616.981.711-036.21-07:/616.151.5+616.153.962.4

KIREYEVA, R. Ya., Chair of Infectious Diseases, Khabarovsk Medical Institute

"Characteristics of Coagulation and Fibrinolytic Activity of the Blood in Tickborne Rickettsiosis"

Moscow, Sovetskaya Meditsina, No 8, Aug 70, pp 59-62

Abstract: In a study of 51 patients with tickborne rickettsiosis, it was determined that both blood coagulation and fibrinolytic activity of the blood deviated from normal. As compared with characteristics shown by a group of healthy controls, the fibrinogen level of the patients was considerably higher, the mean number of thrombocytes somewhat lower (although the difference was statistically unreliable), the mean indices of fibrinolytic activity higher, the initial level of prothrombin lower, the length of time of bleeding greater, and the time of blood coagulation shorter. The degree of disturbance of blood coagulation was directly related to the severity of the disease and was most pronounced during the period in which the disease was accompanied by fever.

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1/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--SOME INDICES OF THE BLOOD COAGULATION AND FIBRINOLYTIC ACTIVITY IN PATIENTS WITH ERYSIPELAS -U-

AUTHOR--KIREYEVA, R.YA.

COUNTRY OF INFO--USSR

SOURCE--KLINICHESKAYA MEDITSINA, 1970, VOL 48, NR 3, PP 107-111

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BLOOD COAGULATION, ERYSIPELAS, FIBRINOGEN

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/1857 STEP NO--UR/0497/70/048/003/0107/0111

CIRC ACCESSION NO--AP0125468

UNCLASSIFIED

2/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125468

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INVESTIGATIONS OF THE BLOOD COAGULATION AND ANTIFIBRINOLYTIC SYSTEM IN 66 PATIENTS WITH ERYSIPELAS TESTIFY TO ESSENTIAL SHIFTS IN THE REFERRED TO SYSTEM. THE MOST REGULAR WERE CHANGES IN THE CONTENT OF FIBRINOGEN, FIBRINOLYSIS, PLASMA TOLERANCE TO HEPARIN, PROTHROMBIN INDEX, BLOOD COAGULATION AND BLEEDING TIME. THESE CHANGES CORRESPONDED WITH THE SEVERITY OF THE DISEASE AND THE INCIDENCE OF RELAPSES AND COMPLICATIONS. AT THE TIME OF THE PATINETS' DISCHARGE FROM THE HOSPITAL (11TH-20TH DAY FROM THE ONSET OF THE DISEASE) THE BLOOD COAGULATION AND FIBRINOLYTIC INDICES STILL DID NOT NORMALIZE. COAGULOGRAPHIC CHANGES IN ERYSIPELAS ARE A CONSTANT BACKGROUND AND MAY BE A PREDISPOSING FACTOR IN THE DEVELOPMENT OF THROMBOEMBOLIC COMPLICATIONS. FACILITY: KHABAROVSKOG MEDITSINSKOGO INSTITUTA.

UNCLASSIFIED

USSR UDC: 621.375.82

VASSERNIS, R. I., KIREYEVA, S. I., TOKMAKOVA, V. P., SAZONOVA, S. A., SKORO-BOGATOV, B. S.

"Determining the Optical Power and Optical Nonhomogeneity of Active Elements of Lasers by Line Test Patterns"

Khar'kov, Monokristally i tekhnika--sbornik (Single Crystals and Technology --collection of works), vyp. 7, 1972, pp 77-82 (from RZh-Fizika, No 8, Aug 73, abstract No 8D1146 by the authors)

Translation: A method is proposed for determining the optical power of an active laser element as a "pseudolens" and also the optical nonhomogeneity of elements on a collimator instrument with the aid of line test patterns. Correspondence is observed between the lenticularity measured on the instrument and that calculated from an interference pattern. It is demonstrated that elements can be presorted with respect to nonhomogeneity.

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USSR

UDC: 681.327.2

GORYACHEVA, L. N., KIREYEVA, V. F., TUGBAYEV, B. A.

"A Device for Tag Bit Data Retrieval in a Random Access Memory"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 46, Dec 73, Author's Certificate No 407315, Division G, filed 16 Nov 71, published 21 Nov 73, p 160

Translation: This Author's Certificate introduces: 1. A device for tag bit data retrieval in a random access memory. The device contains an n-place input register and $(k+m)$-place and $(n-m+k)$-place number registers (where $m<k<n$) which are connected to corresponding accumulators. These accumulators are connected to $(m+1)$-place address registers which are connected, in turn, to an n-place output register. The device also contains an analysis module connected to the input register and to the number registers. Also included is a control module. As a distinguishing feature of the patent, the device is simplified and speed is increased by including an m-place free cell register connected to the digital places from the first to the m-th and from the $(k+1)$-th to the $(m+k)$-th digits of the $(m+k)$-place number register, and also to the digital places from the first to the m-th

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USSR

GORYACHEVA, L. N. et al., USSR Author's Certificate No 407315

and from the (n - k + 1)-th to the (n - k + m)-th digits in the (n - k + m)-place number register. The digital places of the input register from the first to the k-th digit are connected to the like places of the (m + k)-place number register, the digital places of the input register from the third to the (m + r)-th digit are connected to the digital places from the second to the (m + 1)-th digit of the address registers, and the digital places of the input register from the (k + 1)-th to the n-th digit are connected to the digital places from the first to the (n - k)-th digit in the (n - k + m)--place number register. 2. A modification of this device distinguished by the fact that the analysis module consists of three coincidence gates. The inputs of one of these are connected to the digital places from the (3 + m)-th to the k-th digit of the input register and the (m + k)-place number register. The inputs of another coincidence gate are connected to the digital places from the first to the m-th digit and from the (m + 1)-th to the 2m-th digit in both number registers. The inputs of the third coincidence gate are connected to the digital places from the (k + 1)-th to the (k + m)-th digit in the (m + k)-place number register and to all digital places of the free cell register. The outputs of all coincidence gates are connected to the control module.

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USSR UDC 615.919.591.145.2.615.918:58.615.9:576.8.097.29

POBEREZHSKAYA, T. I., KIREYEVA, V. F., and ZOLOTOVITSKAYA, L. A.

"Effect of Bee Venom on the Bile Formation in Dogs"

Uch. zap. Gor'kov. un-t. Ser. biol. (Educational Proceedings of the Gor'kov University, Biological Series), Vyp 40, 1972, pp 9-13 (from Referativnyy Zhurnal -- Farmakologiya. Khimioterapevticheskiye Sredstva. Toksikologiya, No 1, 1973, Abstract No 1.54.787 by V. K.)

Translation: Dogs which had been given 1 mg/kg of native bee venom (BV) tended to decrease bile production during the first day after the injection of BV then to double its secretion during the second and third days, then gradually to return to normal. The amount of cholesterol separated with the bile in the three-hour experiment on the day of the BV injection practically did not change. By the third day it had increased three-fold and was normal by the sixth to the eighth day. The amount of hematoidin separated with the bile increased during the second or third day and returned to normal on the sixth to the eighth day.

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KIRGINTSEV, A.N.

TPRS 59308
U-73

III-7. GROWTH OF SINGLE CRYSTALS OF INDIUM ANTIMONIDE IN A ROTATING CONTAINER

(Article by A. N. Kirgintsev, B. A. Shleyfman, Yu. A. Rybin, Novosibirsk; Novosibirsk, III Simpozium po Protsessam Rosta i Sinteza Poluprovodnikovykh Kristallov i Plenok, Russian, 12-17 June, 1972, p 31)

The given paper is a component part of the experimental studies to apply the method of a rotating container to grow single crystals of semiconductors and other substances.

Single crystals of indium antimonide were obtained for the first time in a rotating container by zone melting.

The basic required conditions of growing the single crystals of indium antimonide in a rotating container were found.

The law of variation of the angle of inclination of the container on growth of single crystals by zone melting is described mathematically. The mechanism of programmed variation of the angle of inclination has been constructed.

Single crystals of indium antimonide which are homogeneous in volume have been obtained using zone equilibration.

- 30 -

USSR UDC 542.65:546.212

KIRGINTSEV, A. N., YAKOBI, N. YA., and SHAVINSKIY, B. M., Institute of Inorganic Chemistry, Siberian Branch of the Academy of Sciences USSR

"Directed Crystallization of "Sea" Water"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 10, Oct 71, pp 2318-2320

Abstract: Distribution of the main components of "sea" water in solid phase was studied during directed crystallization of a solution with following composition: NaCl -- 2.7%; $MgSO_4$ -- 0.33%; $CaCl_2$ -- 0.11%. Distribution of these components in solid phase is determined by total concentration and not by the concentration of a single component. All the components have practically identical coefficients of distribution regardless of the concentration. The coefficient of distribution is practically constant in the range of the crystallization rate from 0.4 to 1.8 cm/hr. In this range stirring has very little effect on the coefficient of distribution.

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USSR

UDC 546.289-172:542.65

KIRGINTSEV, A. N., and RYBIN, Yu. A., Institute of Inorganic Chemistry, Siberian Department, Academy of Sciences USSR, Novosibirsk

"Producing Germanium Single Crystals in a Rotating Container. Report 2: Separation of the Germanium Melt Into Layers"

Novosibirsk, Izvestiya Sibirskogo Otdeleniya AN SSSR, Seriya Khimicheskikh Nauk, Vyp. 6, No 14, (179), Nov 70, pp 23-27

Abstract: When germanium single crystals are grown in a horizontal rotating container, the melt separates into two liquid layers -- the α-melt and β-melt -- when the following conditions are satisfied: 1. high temperature (about 1200°C in the heater) and a high temperature gradient (of the order of 200 deg/cm) on the walls of the container close to the crystallization front; 2. a free cavity above the melt at the crystallization front; 3. a definite order of melting of the charge. With respect to this third condition, the melting process must be started on the side opposite the seed crystal, after which the melting front is gradually moved toward the seed crystal. It was found that the α-melt usually extends for 15-20 mm, and that the length ratio for α- and β-melts is usually 0.15. In most cases, the α-melt is encased in a film. The film may be a dark one comprised of graphite dust, or a

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USSR

KIRGINTSEV, A. N. and RYBIN, Yu. A., Izvestiya Sibirskogo Otdeleniya AN SSSR, Seriya Khimicheskikh Nauk, Vyp, 6, No 14, (179), Nov 70, pp 23-27

light one which is probably either an extremely thin skin of germanium or a thin film of germanium dioxide. In these cases, the boundary between layers is clear both where the germanium melt touches the walls and on the free surface. The α-melt and its interface with the β-melt can also be seen when there is no film. It was found that the β-melt is a stable melt of germanium and that the α-melt is unstable. The α-melt yields single crystals of high quality with a considerably lower dislocation density than the β-melt. In addition, the α-melt does not wet the walls of the container as well as the β-melt, and it is in the cooler section of the container. It is concluded that other materials might also separate into layers in the melt under similar conditions. This has been confirmed for antimony.

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USSR

UDC: 546.289.172:542.65

RYBIN, R. A., and KIRGINTSEV, A. N., Institute of Inorganic Chemistry, Siberian Department, Academy of Sciences USSR, Novosibirsk

"Producing Germanium Single Crystals in a Rotating Container. Report 3: Directed Crystallization under Conditions of a Sharp Temperature Gradient"

Novosibirsk, Izvestiya Sibirskogo Otdeleniya AN SSSR, Seriya Khimicheskikh Nauk, Vyp. 6, No 14 (179), Nov 70, pp 27-32

Abstract: Data are given on the growth of germanium single crystals in a horizontal rotating container under conditions of a high axial temperature gradient (more than 100 deg/cm) in pure quartz containers and in quartz containers coated with carbon black. Crystal growing may be done at fairly high rates (15 cm/hr). Conditions are determined under which crystal growth takes place with and without renewal of the α-melt in pure quartz containers. It is shown that single crystals with low dislocation density can be grown over a longer section in quartz containers coated with carbon black than in pure quartz containers.

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USSR UDC 548.55+512.65:546.289

KIRGINTSEV, A. N., and RYBIN, Yu. A., Institute of Inorganic Chemistry Siberian Division Acad. Sc. USSR, Novosibirsk

"The Growth of Germanium Monocrystals in Rotating Container. I. Communication. Crystalliztion Under Conditions of a Weak Axial Gradient of Temperature"

Novosibirsk, Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, Seriya Khimicheskikh Nauk, No 12, Sep 70, pp 66-70

Abstract: Experimental results are reported on growing germanium monocrystals by directed crystallization in a horizontally rotating quartz container with a small axial temperature gradient -- 10-40°/cm. The crystallization was carried out at 1000°C, using polycrystalline germanium with a specific resistance of 0.01-60 ohm·cm, either crushed into small pieces or casted as a rod, occupying almost the entire container. It was determined that under above conditions the monocrystals may be grown best when there is a free cavity at the front of crystallization, such as when the container is moved at 3.8 cm/hr and rotated at $\geqslant$250 rpm. The monocrystals obtained show uniform distribution of specific resistance along their cross-section and large dislocation density ($\sim 10^6$ cm^2).

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AP9053468

UR 0289

PRIMARY SOURCE: Izvestiya Sibirskogo Otdeleniya, AN SSSR, Seriya Khimicheskikh Nauk, Nr 12(162), Nr 5, PP 16-20

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A. N. Kirgintsev, I. I. Gorbacheva

THE EFFICIENCY OF NORMAL FREEZING OF TIN IN A ROTATING CONTAINER

The normal vertical freezing of tin mixed with bismuth and copper has been investigated. The efficiency of the purification of tin from bismuth and copper admixtures under normal horizontal and vertical freezing has been compared.

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USSR

UDC 542.61:669.054.27:517.3

KIRGINTSEV, A. N., PYL'NEVA, N. A., Institute of Inorganic Chemistry, Novosibirsk, Siberian Department, Academy of Sciences USSR

"Zone Extraction Purification"

Novosibirsk, Izvestiya Sib Otdel Akad Nauk SSSR, Seriya Khim Nauk, No 2, Vol 1, pp 13-17

Abstract: A mathematical analysis was performed for the process of zone melting of a two-layered ingot. With the usual assumptions, plus the assumptions that the layers do not mix in the liquid state and have identical or similar melting points, an equation was derived which describes the distribution of impurities in each of the layers for any pass to the melted zone and a solution was found for the limiting distribution of impurities. Analysis of the equations revealed a relationship which is of practical significance for selection of the layer thickness for the production of even alloying of ingots when the distribution coefficients of the impurity in the layers are $\lambda_1 < 1$, $\lambda_2 > 1$ or vice versa. A relationship was worked out for estimation of the influence of layer thicknesses and distribution coefficients

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201320016-4"

USSR

KIRGINTSEV, A. N., et al, Izvestiya Sib Otdel Akad Nauk SSSR, Seriya Khim Nauk, No 2, Vol 1, pp 13-17

on the degree of purification of the materials treated.

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1/2 015 UNCLASSIFIED PROCESSING DATE--09DEC70

TITLE--CONDITIONS OF POTASSIUM TETRAPHENYLBORATE SYNTHESIS AND ITS CONVERSION TO SODIUM AND LITHIUM TETRAPHENYLBORATES -U-

AUTHOR-(02)-KIRGINTSEV, A.N., KOZITSKIY, V.P.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. KHIM. (LENINGRAD) 1970, 43(3), 596-600

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--POTASSIUM COMPOUND, ORGANOBORON COMPOUND, ORGANOMAGNESIUM COMPOUND, ORGANOSODIUM COMPOUND, ORGANOLITHIUM COMPOUND, BENZENE DERIVATIVE, CHEMICAL SYNTHESIS, ION EXCHANGE RESIN/(U)KU2 ION EXCHANGE RESIN

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1848 STEP NO--UR/0080/70/043/003/0596/0600

CIRC ACCESSION NO--AP0112832

UNCLASSIFIED

2/2 015 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0112832

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BEST YIELDS OF KBPH SUB4 WERE OBTAINED WHEN CRYST. (0.06 MM OF MAGNITUDE OF CRYSTALS) KBF SUB4 WAS ADDED IN SMALL EXCESS TO THE ETHER SOLN. OF PHMGBR. THE KBPH SUB4 PREPD. WAS DECANTED AND RECRYSTD. FROM AQ. ACETONE WITH A SLOW EVAPN. OF SOLVENT. BOTH LIBPH SUB4 AND NABPH SUB4 WERE PREPD. BY PASSING 0.1N AQ. ACETONE SOLN. OF KBPH SUB4 THROUGH A COLUMN PACKED WITH KU-2 ION EXCHANGER. BY EVAPG. THE ELUATE NABPH SUB4 CONTG. 0.5PERCENT H SUB2 O WAS OBTAINED. DEHYDRATION UNDER REDUCED PRESSURE GAVE ANHYD. MATERIAL. LIBPH SUB4, WHICH WAS OBTAINED AFTER EVAPN. OF ELUATE TO DRYNESS FOLLOWED BY EXTN. OF ITS AQ. SOLN. WITH ETHER, FORMS A VERY STABLE TETRAHYDRATE AFTER REMOVING THE SOLVENT. LI SALT FREE OF SOLVENT WAS PREPD. BY SALTING IT OUT OF PR SUB2 O SOLN. WITH CYCLOHEXANE.

FACILITY: INST. NEORG. KHIM., NOVOSIBIRSK, USSR.

UNCLASSIFIED

1/2 020 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--A PURIFICATION OF TIN AND INDIUM BY PROGRESSIVE FREEZING -U-

AUTHOR-(02)-KIRGINTSEV, A.N., SELIVANOV, I.M.

COUNTRY OF INFO--USSR

SOURCE--IZVESTIYA SIBIRSKOGO OTDELENIYA AKADEMII NAUK SSSR, NO 4, SERIYA KHIMICHESKIKH NAUK, 1970, NR 2, PP 57-61
DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR

TOPIC TAGS--TIN, INDIUM, ZONE MELTING, METAL PURIFICATION, SILVER, COPPER, BISMUTH, FREEZING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1993/0580 STEP NO--UR/0289/70/000/000/0057/0061

CIRC ACCESSION NO--AP0113471
UNCLASSIFIED

2/2 020 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0113471

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A DEVICE FOR BULK PURIFICATION BY PROGRESSIVE FREEZING IS WRITTEN. A DISTRIBUTION OF SILVER, COPPER AND BISMUTH IS STUDIED FOR PROGRESSIVE FREEZING OF BULK TIN (UNDER 110 KG). THE PECULIARITIES OF A PURIFICATION TIN AND INDIUM BY PROGRESSIVE FREEZING ARE DISCUSSED. FACILITY: INSTITUT NEORGANICHESKOY KHIMII SO AN SSSR, NOVOSIBIRSK.

UNCLASSIFIED

1/2 011 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--AN ESTIMATION OF DISTRIBUTION COEFFICIENTS FOR PROGRESSIVE FREEZING WITH AN APPLICATION ETALONLESS SPECTRAL ANALYSIS -U-

AUTHOR-(02)-KOSYAKOV, V.I., KIRGINSTEV, A.N.

COUNTRY OF INFO--USSR

SOURCE--IZVESTIYA SIBIRSKOGO OTDELENIYA AKADEMII NAUK SSSR, NO 4, SERIYA KHIMICHESKIKH NAUK, 1970, NR 2, PP 69-74

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL ANALYSIS, LEAD COMPOUND, NITRATE, FREEZING, DISTRIBUTION COEFFICIENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1993/0582 STEP NO--UR/0289/70/000/000/0069/0074

CIRC ACCESSION NO--AP0113473

UNCLASSIFIED

2/2 011 UNCLASSIFIED PROCESSING DATE--13NOV70
CIRC ACCESSION NO--AP0113473
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A CLASSIFICATION OF IMPURITIES FOR PROGRESSIVE FREEZING AND ZONE MELTING IS SUGGESTED IN DEPENDENCY ON VALUE OF DISTRIBUTION COEFFICIENT. THE METHOD FOR AN ESTIMATION OF DISTRIBUTION COEFFICIENTS FOR PROGRESSIVE FREEZING WITH AN APPLICATION ETALONLESS SPECTRAL ANALYSIS IS GIVEN. THE METHOD WAS EXAMINED FOR AN ESTIMATION OF DISTRIBUTION COEFFICIENT OF LEAD NITRATE FOR PROGRESSIVE FREEZING OF SILVER NITRATE. FACILITY: INSTITUT NEORGANICHESKOY KHIMII SO AN SSSR, NOVOSIBIRSK.

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--04DEC70

1/2 009

TITLE--THE OPTIMISATION OF PURIFICATION OF SUBSTANSES BY NORMAL FREEZING

-U-

AUTHOR-(02)-KIRGINTSEV, A.N., KOSYAKOV, V.I.

COUNTRY OF INFO--USSR

SOURCE--IZVESTIYA SIBIRSKOGO OTDELENIYA AKADEMII NAUK SSSR, NO 4, SERIYA KHIMICHESKIKH NAUK, 1970, NR 2, PP 135-140

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL PURIFICATION, FREEZING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

STEP NO--UR/0289/70/000/002/0135/0140

PROXY REEL/FRAME--3005/0034

CIRC ACCESSION NO--AP0132329

UNCLASSIFIED

2/2 009 UNCLASSIFIED PROCESSING DATE--04DEC70
CIRC ACCESSION NO--AP0132329
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CALCULATION OF OPTIMAL CONDITIONS OF PURIFICATION BY NORMAL FREEZING ALLOWED TO RECEIVE CHLAPEST PRODUCT IS EXAMINED. THE EXAMPLES IS GIVEN WITH USE EXPERIMENTAL RESULTS AND MATEMATICALLY MODEL OF NORMAL FREEZING. THE DIFFERENT VARIANTS OF ECONOMIC CALCULATION IS DISCUSSED.
FACILITY: INSTITUT NEORGANICHESKOY KHIMII SO AN SSSR, NOVOSIBIRSK.

UNCLASSIFIED

USSR

UDC 582.28:577.472

KIRGIZBAYEVA, Kh. M., Institute of Botany, Academy of Sciences Uzbek SSR

"Species of Aquatic Fungi New to the USSR"

Tashkent, Uzbekskiy Biologicheskiy Zhurnal, No 3, 1970, p 61

Abstract: Survey of microflora of the inland waters of Tashkentskaya Oblast in 1965-1969 showed the following species of aquatic fungi, recorded in the USSR for the first time: 1. Dictyuchus clavatus Fischer. Hyphae of mycellium are 48.8-115 microns wide. Zoosporangia are claviform, forming dark brown hyphal ends, 178 x 81 microns. 2. Sapromyces androgynus Thaxter. Colonies are loose, mycelium is 118 microns wide, verticillate-branched. Verticils are 34.8 x 8.7 microns. 3. Anguillospora crassa Ing. Conidiophores are colorless, septate, 11.2 microns wide, and short. Colonies are sickle-shaped. 4. Campylospora chaetocladia. Conidiophores are branched and septate. Conidia have three and four offshoots, extending from round cells 2.8-5.6 microns in diameter at the base. 5. Dendrospora erecta Ing. Conidiophores are colorless, thin, with partitions, and rounded at the apex, 165 x 3 microns. Colonies are multicellular, claviform, and 99 to 102 x 9 microns in size.

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Epidemiology

USSR UDC 616.621.5-036.33+576.858.75

IL'INA, T. S., DZHALALOV, KH. D., VARSANOVA, YE. TA., YELISEYEVA, T. S., SEMIKHANIDU, L. G., and KIRGIZOVA, T. M., Laboratory of Virology, Scientific Studies Institute of Epidemiology, Microficlogy, and Infectious Diseases

"Epidemological Characteristic of Three Epidemics of Flu Produced by the A_2 Hong Kong Virus"

Tashkent, Meditainskiy Zhurnal Uzbekistana, No 8, Aug 73, pp 68-73

Abstract: Since the appearance of the A_2 Hong Kong flu virus in January, 1969, in Tashkent, there have been three epidemics. Although the epidemics were similar in a general way, each exhibited particular features of the spread of infection, age of those infected, change with time and season of the year, and immunological characteristics toward various serums. The studies indicated that the cycles of flu produced by the A_2 Hong Kong-68 flu virus showed a tendency toward a gradual damping of the epidemic process, which is expressed in a decrease in the intensity of subsequent epidemics, in the reduction in the severity of the disease, in a decrease in infectiousness among adults, but an increase among young children, and in a general increase in immunity.

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USSR

KIRGIZOVA, T. M., and ZAPRONETOVA, L. V. of the Uzbek Scientific Research Institute of Epidemiology, Microbiology, and Infectious Diseases, and the Moscow Scientific Research Institute of Viral Preparations

"The State of Collective Immunity of the Population of the Cities of Bokhara and Samarkand to the Viruses Coxsackie A_9, Coxsackie B_3, $ECHO_9$ and $ECHO_{29}$"

Tashkent, Meditsinskiy Zhurnal Uzbekistana, No 4, 1971, pp 34-39

Abstract: The presence of antibodies to the viruses Coxsackie A_9, Coxsackie B_3, $ECHO_9$ and $ECHO_{29}$ was established in the cities of Bokhara and Samarkand, proving the circulation of these viruses among the population of the two cities. The two strains of each of the two viruses, isolated in 1963-1966, had produced sporadic cases of aseptic serous meningitis, meningoencephalitis, and poliomyelitis-type diseases recorded in Tashkent in 1963-1964. For both cities the most widespread were antibodies to $ECHO_9$ virus, and least widespread -- those to $ECHO_{29}$. Reliable fluctuations in the distribution of antibodies were revealed depending on the season of the year. The content of antibodies was highest in the sera of the adult population, and the lowest -- in the blood of children o to 3 years old. The mean geometric titers of antibodies for both cities were relatively low, from 2.64 to 0.02.

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USSR

UDC 621.317.36/76

KIRIANIKI, N. V., KLIMOVITsKAYa, A. I., and MOSKOVChENKO, Yu. N.

"A New Zero-Beat Indicator and its Use for Frequency Measurement"

Otbor i peredach inform. Resp. mezhved sb. (Selection and Transmission of Information. Republic Interdepartmental Collection), 1972, No 32, pp 85 - 89 (from RZh-Avtomatika Telemechanika i Vychislitel'naya Tekhnika, No 3, Mar 73, Abstract No 3 A300 by the authors)

Translation: A new optical zero-beat indicator is described and the possibility of using it for frequency measurement is discussed. An analog frequency meter circuit with such an indicator and the results of experimental frequency meter studies are given. Ways to improve the circuit further are pointed out. Three illustrations, three bibliographic entries.

1/1

UDC 577.1:615.7/9

USSR

KIRICHEK, L. T., KARAMYSHEV, A. N., NALBAT, A. S., KOSENKO, P. I., KHARCHENKO, N. S.

"Some Aspects of the Systemic Toxic Action of Metaphos"

Farmakol. i toksikologiya. Resp. mezhved. sb. (Pharmacology and Toxicology. Republic Interdepartmental Collection of Works), 1970, No 5, pp 205-208 (from RZh-Biologicheskaya Khimiya, No 19, 10 Oct 70, Abstract No 19 F1803 by A. Ignat'yev)

Translation: After a single injection of rats, cats, and rabbits with metaphos at doses of 1-1/2 LD50, there are not only the specific toxic effects produced by the insecticide but changes in liver function: decrease in total serum protein, dysproteinemia, decreased cholinesterase activity in serum and liver tissue, positive thymol test, change in duration of prothrombin time, decrease in glycogen level of the liver, increased amount of protein in urine, decreased diuresis after a water load, and histologic changes in all organs.

1/1

1/42 020 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--A DEVICE FOR SIMULATING PULSED INTERFERENCE -U-

AUTHOR-(05)-RAPPOPORT, L.I., KHVOSTENKO, A.I., KULAKOV, N.N., SHAPOSHNIK, V.I., KIRICHEK, V.A.
COUNTRY OF INFO--USSR

SOURCE--PATENT NO 260291, FILED 4 NOV 68
REFERENCE--MOSCOW, OTKRYTIYA, IZOBRETENIYA, PROMYSHLENNYYE OBRAZTSY,
DATE PUBLISHED--------70

SUBJECT AREAS--METHODS AND EQUIPMENT, ELECTRONICS AND ELECTRICAL ENGR.

TOPIC TAGS--PATENT, PULSE EXCITATION, PULSE GENERATOR, PULSE INTEGATOR, PULSE SIGNAL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3001/0735 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0126443
UNCLASSIFIED

2/2 020 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AA0126443

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THIS AUTHOR'S CERTIFICATE INTRODUCES A DEVICE FOR SIMULATING PULSED INTERFERENCE. THE UNIT CONTAINS THE EQUIPMENT TO BE STUDIED, A POWER SUPPLY, CONTROL PULSE GENERATOR, AND SHUNTING DEVICE. AS A DISTINGUISHING FEATURE OF THE PATENT, THE DEVICE IS DESIGNED FOR PRODUCING INTERFERENCE WITH CONTROLLABLE POLARITY, AMPLITUDE, DURATION, AND PRF AND ALSO FOR ELIMINATING THE MUTUAL EFFECT OF THE INTERFERENCE SIMULATOR AND THE EQUIPMENT TO BE STUDIED. AN AUXILIARY DC POWER SUPPLY WITH CONTROLLABLE POLARITY AND AMPLITUDE OF THE OUTPUT VOLTAGE IS CONNECTED IN PARALLEL BOTH WITH THE EQUIPMENT TO BE STUDIED AND WITH ITS POWER SUPPLY BY MEANS OF A COMMUTATOR. THE OUTPUTS OF THE CONTROL PULSE GENERATOR ARE CONNECTED TO THE COMMUTATOR AND SHUNTING DEVICE, WHICH IS CONNECTED TO THE COMMUTATOR AND TO THE AUXILIARY POWER SUPPLY. FACILITY: DONETSKIY NAUCHNO-ISSLEDOVATEL'SKIY I PROYEKTNO-KONSTRUKTORSKIY INSTITUT AVTOMATIZATSII GORNYKH MASHIN.

USSR

UDC 681.333

RAPPOPORT, L. I., KHVOSTENKO, A. I., KULAKOV, N. N., SHAPOSHNIK, V. I., KIRICHEK, V. A., Donetsk Scientific Research Institute for the Planning and Design of Mining Machine Automation

"A Device for Simulating Pulsed Interference"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 3, 1970, p 130, patent No 260291, filed 4 Nov 68

Abstract: This Author's Certificate introduces a device for simulating pulsed interference. The unit contains the equipment to be studied, a power supply, control pulse generator, and shunting device. As a distinguishing feature of the patent, the device is designed for producing interference with controllable polarity, amplitude, duration, and prf and also for eliminating the mutual effect of the interference simulator and the equipment to be studied. An auxiliary DC power supply with controllable polarity and amplitude of the output voltage is connected in parallel both with the equipment to be studied and with its power supply by means of a commutator. The outputs of the control pulse generator are connected to the commutator and shunting device, which is connected to the commutator and to the auxiliary power supply.
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USSR

UDC 536.521.033

SHERBINA, D. M., KIRICHENKO, A. P.

"Determination of Normal Reflecting Power in a Wide Temperature Interval on the Basis of the Reflection Indicatrix"

Tr. Metrol. In-tov SSSR (Works of Metrological Institutes of the USSR), No 110 (170), 1971, pp 71-97 (from Referativnyy Zhurnal, Metrologiya i Izmeritel'naya Tekhnika, No 12, Dec 71, Abstract No 10.32.1120)

Translation: A method is set forth for determining the spectral reflecting power during the incidence of light upon a surface along the normal. A formula is derived for computing the reflecting power on the basis of the reflection indicatrix. Consideration is given to measurement errors connected with the presence of a strong background, conversion of the reflection indicatrices, the finite time of establishment of the photo-receiver signal and the finite spectral width of the modulated light. 4 tables. 6 references.

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1/2 030 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--THE TRANSPARENCE OF WINDOWS FROM LITHIUM FLUORIDE IN VACUUM ULTRAVIOLET RADIATION SOURCES -U-
AUTHOR-(02)-ZASYPKINA, M.A., KIRICHENKO, A.P.

COUNTRY OF INFO--USSR

SOURCE--LENINGRAD, OPTIKO-MEKHANICHESKAYA PROMYSHLENNOST', NO 2, FEB 70, PP 6-10
DATE PUBLISHED----FEB70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--OPTIC WINDOW, LITHIUM FLUORIDE, UV RADIATION, LIGHT TRANSMISSION, SURFACE FILM, VACUUM OIL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1996/1584 STEP NO--UR/0237/70/000/002/0006/0010

CIRC ACCESSION NO--AP0118567
UNCLASSIFIED

2/2 030 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0118567

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A STUDY WAS MADE OF CHANGES IN THE TRANSPAENCE OF WINDOWS FROM LITHIUM FLUORIDE IN THE SOURCES OF VACUUM ULTRAVIOLET. IT WAS ESTABLISHED THAT THE TIME OURING WHICH THE WINDOWS ARE TRANSPARENT IS BASICALLY DETERMINED BY THE FORMATION ON THEM OF AN OILY FILM AND A CHANGE IN ITS PROPERTIES UPON IRRADIATION. UNDER THE CONDITIONS WHERE THE INFLUENCE OF OIL IS EXCLUDED THE TRANSPARENCE OF THE WINDOWS IS SATISFACTORY FOR OVER 150 HOURS. IN THIS CASE THE MAIN REASON OF THE IMPAIRMENT OF TRANSPARENCE IS AN ULTRAVIOLET RADIATION WITH WAVELENGTHS SHORTER THAN 105 MMU.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002201320016-4"

USSR

UDC 621.385.633.14

KIRICHENKO, A.YA., LYSOVA, L.A., SUVOROV, A.N.

"Experimental Investigation Of A Slow-Wave Structure Of The Ring-Plane Type"

Kiev, Izvestiya Vuzov SSSR--Radioelektronika, Vol XIV, No 10, 1971, pp 1234-1236

Abstract: The results are described of an experimental investigation of a slow-wave structure of the ring-plane type with two supporting planes in the 3-cm range. The purpose of the "hot" tests was to determine the possibility of modeling this system in the millimeter range. Received by editors 7 Dec 60. 6 ref. 3 fig.

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USSR

UDC 622.245.428

KIRPICHENKO, B. I., KLYAVIN, R. M., SHARIPOV, A. U., and PRYAMOV, P. A., Volga-Ural Branch of the All-Union Scientific Research Institute of Geophysical Exploration Methods, and the Bashkir Scientific Research and Planning Institute of the Petroleum Industry

"Influence of the Strength of Cement Rock on the Form of Acoustic-Logging Cementograms"

Moscow, Bureniye, No 5, 1972, pp 25-28

Abstract: Acoustic-logging cementograms, recorded during a period of relative stabilization of the process of cement-rock formation, indicate a relationship between the amplitude of the longitudinal waves A_p and the strength of the cement block. It is shown that the form of acoustic-logging cementograms made during measurements in the period of hardening of the cement solution and the start of fixation of the cement block depends upon the time between the moment of measuring and the end of cementation of the well, and determination of the quality of the cement ring on the basis of measurements during this period is possible only with knowledge of the dynamics of the acoustic values which characterizes the specific state of the hardening mixture in the well under given conditions. 3 figures. 1 table.

1/1

USSR

UDC 547.427.3

NIFANT'YEV, E. YE., SHESTAKOVA, T. G., and KIRICHENKO, E. A.

"Triphenylphosphite Transesterification Reaction with Alcohols"

Leningrad, Zhurnal Obshchey Khimii, Vol 44, No 11, Nov 71, pp 2570-2571

Abstract: Highly purified triphenylphosphite reacts sluggishly in the transesterification reaction. The presence of catalytic amounts of metallic sodium shows no effect on the reaction. However, introduction of even trances of HCl accelerates the transesterification reaction considerably.

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USSR

UDC 547.427.3:547.26'118:541.64

SHESTAKOVA, T. G., KIRICHENKO, E. A., and NIFANT'YEV, E. Ye.

"Phosphorus-Containing Polymers. XX. Synthesis of Neutral Polyphosphites Derived from Hexitols"

Leningrad, Zhurnal Prikladnoy Khimii, Vol 44, No 7, Jul 71, pp 1620-1624

Abstract: Sorbitol or mannitol reacted with triphenyl phosphite in molar ratios of 1:1, 1:2, and 1:3. The reaction took place at 130°. The hexitols also reacted in the same molar ratios with phosphorous acid hexamethyltriamide, which reacted more readily, the reaction taking place at 100-110°. The diethylamine formed could be removed from the reaction mixture more readily than phenol. The principal product (the only product of the reaction at molar ratios of 1:1 and 1:2) was hexitol polyphosphite. Upon reaction at a molar ratio of 1:3, low-molecular weight substances with the probable composition $C_6H_8O_6P_3(OPh)_3$ and $C_6H_8O_6P_3(NEt_2)_3$ were formed. Oxidation of the polyphosphites with NO_2 in dimethylformamide resulted in the formation of polyphosphates. On heating with S in dimethylformamide in an Ar stream, the polyphosphites were converted to polythiophosphates. Tests on the oxidation of oil AS-6 in the presence of the neutral hexitol phosphites (sorbitol triphosphite, mannitol triphosphite,

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USSR

SHESTAKOVA, T. G., et al., Zhurnal Prikladnoy Khimii, Vol 44, No 7, Jul 71, pp 1620-1624

1:1 sorbitol polyphosphite) showed that these substances were more effective antioxidants for transformer oil than acid hexitol phosphites.

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USSR

UDC 547.427.3:661.718.1

NIFANT'YEV, E. Ye., SHESTAKOVA, T. G., and KIRICHENKO, E. A.

"Phosphorus-Containing Polymers. XIX. Transesterification of Dimethyl Phosphite with Hexitols"

Leningrad, Zhurnal Prikladnoy Khimii, Vol 44, No 7, Jul 71, pp 1577-1582

Abstract: By heating sorbitol or mannitol with dimethyl phosphite at 145-150° in an Ar stream in the presence of metallic Na acting as a catalyst and distilling MeOH, hydrogen phosphites of the hexitols that contained 1, 2, or 3 cyclic phosphite groups were obtained, depending on the molar ratio of the reacting compounds. At the molar ratio 1:1, the reaction proceeded according to the equation $C_6H_8(OH)_6 + (MeO)_2P(=O)H \rightarrow C_6H_8(OH)_4\langle O \rangle P(=O)H + 2\ MeOH$.

Prolonged heating of the hydrogen hexitol phosphites resulted in polymerization to acid polyphosphites, which apparently proceeded upon opening of the cyclic group. The acid phosphites and polyphosphites were oxidized with NO_2 to the corresponding acid phosphates. The phosphites were subjected to the Todd reaction (treatment with alkylamines and CCl_4), carried out in dimethylformamide.

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USSR

NIFANT'YEV, E. Ye., Zhurnal Prikladnoy Khimii, Vol 44, No 7, Jul 71, pp 1577-1582

Hydrogen sorbitol phosphite (1:1 ratio) was converted to sorbitol diethylamidophosphate by the reaction with diethylamine and CCl_4 and into neutral sorbitol phosphate by the reaction with triethylamine and CCl_4. Hydrogen sorbitol polyphosphite yielded sorbitol polyamidophosphate upon reaction with diethylamine and CCl_4 and sorbitol polyphosphate upon reaction with triethylamine and CCl_4. Tests with AS-6 oil showed that the cyclic hexitol phosphites would be effective antioxidants for transformer oil.

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UDC 632.95

USSR

NIFANT'YEV, E. YE., SHESTAKOVA, T. G., and KIRICHENKO, E. A.

"Method of Synthesizing Hexitolcyclophosphonates"

USSR Author's Certificate No 248676, filed 27 May 68, published 7 Jan 70 (from RZh-Khimiya, No 13, (II), 10 Jul 70, Abstract No 13N707)

Translation: Hexitolcyclophosphonates of the general formula $CH_2(OH)CH(OH)CH(OH)(O)CH(OH)CH_2OP(O)R$ (I) (R = alkyl, cycloalkyl) are obtained by the interaction of hexitolphosphonites with tertiary amines and CCl_4 in a dioxane medium at 80° with the subsequent recovery of I by known methods. Mannitol and sorbitol are used ad hexitols. A mixture of 6.24 g sorbitol (mannitol) cyclohexylphosphonite in dioxane, 2.2 g Et_3N and 3.1 g CCl_4 is kept at 80° for 4-5 hr, Et_3N. HCl is filtered off, the dioxane is evaporated at 70°/10-20 mm, and 6.1 g I (R = cyclohexyl) are obtained, quantitative yield. I (R = iso-Bu) is obtained analogously. I can be used as physiologically active substances. A. F. Prokof'yeva

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1/2 015 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--POLAROGRAPHIC DETERMINATION OF 2,ISOPROPYLNAPHTHALENE OXIDATION PRODUCTS -U-

AUTHOR-(02)-PESTRETSOVA, T.A., KIRICHENKO, G.N.

COUNTRY OF INFO--USSR

SOURCE--ZAVOD. LAB. 1970, 36(3), 267-9

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--POLAROGRAPHIC ANALYSIS, NAPHTHALENE, HYDROPEROXIDE, KETONE, ORGANIC PEROXIDE, DROPPING MERCURY ELECTRODE, OXIDATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/1962 STEP NO--UR/0032/70/036/003/0267/0269

CIRC ACCESSION NO--AP0132223

UNCLASSIFIED

2/2 015 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0132223

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE POLAROGRAPHIC METHOD FOR THE SIMULTANEOUS DETN. OF THE OXION. PRODUCTS OF 2,ISOPROPYLNAPHTHALENE, I.E. 2,ISOPROPYLNAPHTHALENE HYDROPEROXIDE (I), METHYL 2,NAPHTHYL KETONE (II), AND BIS(2,ISOPROPYLNAPHTHALENE) PEROXIDE (III) IS DESCRIBED. TO DET. I AND II, 0.5 ML OF THEIR 0.2-0.5PERCENT SOLN. IN 2:1 C SUB6 H SUB6-ETOH WAS DEAERATED WITH H, 4.5 ML OF 0.3N LICLO SUB4 IN THE SAME SOLVENT MIXT. WAS ADDED, AND THE SOLN. DEAERATED AGAIN FOR 2 MIN. DROPPING HG ELECTRODE AND THE HG POCL ELECTRODE WERE USED. BOTH I AND II GAVE 1 WAVE AT MINUS 0.85 AND MINUS 1.70 V, RESP. THE SENSITIVITY OF DETN. OF I AND II IN THE OXIDN. MIXT. (WHERE THE LIMITING AMTS. OF I AND II WERE 40 AND 10 WT. PERCENT, RESP.) WAS 2 AND 0.8PERCENT, RESP. IN 0.05 N BU SUB4 NI IN HCONME SUB2, I, II, AND III WERE REDUCED AT MINUS 1.40 V. THE HEIGHTS OF THE WAVES, CORRESPONDING IN THIS ELECTROLYTE TO THE AMTS. OF I AND II, DETD. IN LICLO SUB4, WERE SUBTRACTED FROM THE TOTAL HEIGHT OF WAVE. THE SENSITIVITY OF DETN. OF III IN THE REACTION MIXT. WAS 1PERCENT (MAX. CONTENT OF III WAS 37PERCENT). FACILITY: NII NEFTEKHIM. PRODZVOD., USSR.

UNCLASSIFIED

USSR

KIRICHENKO, G. S., and KHMARUK, V. G., Nuclear Research Institute, Academy of Sciences Ukrainian SSR

"Collisionless Heating of Plasma Ions by an Ion Beam"

Moscow, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 63, No 1(7), Jul 72, pp 107-111

Abstract: The article describes results of a study of the conditions under which the interaction of an ion beam with a plasma results in the heating of the plasma ions. A plasma-beam discharge in a homogeneous magnetic field was used in the experiments. It was found that the interaction of an ion beam with a hot-electron plasma can heat the ion component to a temperature comparable to the mean thermal energy of the electrons. The heating of the plasma ions is due to the electric fields of excited ion-sound oscillations. Thus, it is possible in principle to obtain a plasma with hot electrons and ions by the longitudinal injection simultaneously of an electron beam and an ion beam into a magnetic system.

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USSR

BORISENKO, A. G., and KIRICHENKO, G. S., Institute of Nuclear Research, Ukrainian SSR Academy of Sciences

"Experimental Study of Efficient Retardation of an Ion Beam in Plasma During Ion-Acoustic Instability"

Moscow, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 60, No 1, 1971, pp 384-388

Abstract: A test was made of the theoretical finding that noncollisional thermalization of an ion beam in a plasma can be obtained when the beam is excited by ion-acoustic instability. These conditions are realized at beam velocities that do not exceed, in order of magnitude, the velocity of the nonisothermal ion beam $c_s \sim (T_e/M)^{1/2}$; i.e., for beam energies ε that are comparable with the thermal energy of electrons (T_e = temperature of plasma electrons and M = mass of ion). In the experiment a low-pressure gas discharge plasma in which a monoenergetic beam of alkali ions was injected was used to satisfy this ratio between the parameters ε and T_e. The plasma was produced in a copper vacuum chamber 5 cm in diameter and 20 cm long by means of a discharge between a heated cathode and a main and an auxiliary anode.
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USSR

BORISENKO, A. G., and KIRICHENKO, G. S., Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 60, No 1, 1971, pp 384-388

The discharge current was adjustable within the limits 0-3 amp. By reducing the pressure of the working gas (argon) within the range 10^{-3} - 10^{-4} mm Hg, the authors varied the temperature of the plasma electrons from 4 to about 14 ev at a plasma electron concentration $n_e \leqslant 2 \cdot 10^{10}$ cm^{-3}. The source of the potassium ion beam was a heated porous constant emitter (8 mm in diameter), a steam line, and a molten potassium unit. The energy of the ion beam injected into the plasma was regulated within the limits 10-100 ev by varying the potential of the emitter with respect to that of the base anode of the discharge close to the space charge. Beam current was varied within the limits 0-2 mamp, and the initial angular dispersion was $\alpha/2 \approx 7°$. The passage of the ion beam through the plasma is accompanied by the excitation of low-frequency oscillations. Interaction of the beam with the excited ion-acoustic oscillations leads to the retardation of the beam. As the distance traveled by the beam in the plasma is increased, the distribution function of the beam ion velocities shifts toward the appearance of slower particles. At a fairly large distance from the source the velocity distribution function becomes plateau-like. This corresponds to the efficient transfer of ion beam energy to the plasma.

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UDC 533.922

USSR

KIRICHENKO, G. S., and KHMARUK, V. G.

"Relaxation of an Ion Beam in a Plasma With Hot Electrons"

Kiev, Ukrainskiy Fizicheskiy Zhurnal, Vol 16, No 4, Apr 71, pp 645-650

Abstract: The possibility of producing nonlinear relaxation of an ion beam in a plasma under conditions of turbulent heating of electrons with the aid of the electron beam is studied. It follows from the linear theory that the effective buildup of ionizing oscillations occurs at ion beam velocities not exceeding in order of magnitude the velocity of the nonisothermal ion sound $c_s \sim (T_e/M)^{1/2}$ or when the energy of particles of the beam is comparable to the thermal energy of the electrons (T_e is electron temperature, M is the mass of the ions). The linear theory was supported experimentally in a gas discharge plasma but it was of interest to make experimental studies with fairly fast ion beams. The electron temperature necessary for this transition to higher temperatures as compared with temperatures in a gas discharge plasma is achieved with turbulent heating. The spectrum of excitations and the distribution function of ion velocities in the beam were investigated. It was shown that heating of plasma electrons leads to a broadening of the

USSR

KIRICHENKO, G. S., and KHMARUK, V. G., Ukrainskiy Fizicheskiy Zhurnal, Vol 16, No 4, Apr 71, pp 645-650

spectrum of velocities of the ion beam passing through the plasma column and to the appearance of "anomalously" fast ions and ions that have lost up to 50% of the initial energy. With a decrease in the ratio of the beam velocity to the velocity of the nonisothermal ion sound, there is observed a tendency toward the appearance of a plateau in the ion velocity distribution function. Energy scattering is accompanied by effective angular scattering of the ion beam, which rises with electron temperature and beam current. Relaxation of the ion beam occurs under excitation of ionosonic oscillations by the beam in the plasma. The frequency spectrum has a nonlinear character. The experimental results agree qualitatively with the conclusions of the quasilinear theory.

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1/2 010 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--PREPARATION OF DIHYDRIC PHENOLS BY CATALYTIC OXIDATION OF PHENOL IN AQUEOUS SOLUTIONS -U-

AUTHOR-(04)-MAKALETS, B.I., IVANOVA, I.G., PANKRATOVA, K.G., KIRICHENKO, G.S.

COUNTRY OF INFO--USSR

SOURCE--NEFTEPERERAB. NEFTEKHIM. MOSCOW 1970, (2), 23-5

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--PHENOL, CATALYTIC OXIDATION, DISTILLATION, CHEMICAL SYNTHESIS

PROXY REEL/FRAME--1997/0566 STEP NO--UR/0318/70/000/002/0023/0025

CIRC ACCESSION NO--AP0119484

2/2 010 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119484

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CONTINUOUS CATALYTIC OXIDN. OF PHOH IN AQ. SOLN. YIELDED A MIXT. OF 1,2- (I) AND 1,4- C SUB6 H SUB4 (OH) SUB2 (II). THE OXIDATE WAS CONCD. WITH SIMULTANEOUS AZEOTROPIC DISTN. OF PHOH IN N, FOLLOWED BY EXTN. OF I AND II WITH ETOAC AND DIISOPROPYL ESTER AS SELECTIVE SOLVENTS. THE MAX. YIELD OF 70-5PERCENT I PLUS II WAS OBTAINED AT PH 3-5 AND 30 ATM WITH 5-15PERCENT PHOH SOLN. AND 0.01-0.03 MOLE PERCENT CUCL SUB2 AS CATALYST, BASED ON PHOH. II FORMATION WAS PREDOMINANT, THE CONVERSION OF PHOH BEING 20-5PERCENT.

FACILITY: NOVOKUIBYSHEVSK. FILIAL NIISS, NOVOKUIBYSHEVSK, USSR.

UNCLASSIFIED

USSR UDC 669.18.046.554

KIRICHENKO, I. D., SOSIPATROV, V. G., SMOLYARENKO, D. A., and SEMENOV, YU. N.

"Production of Manganese-Aluminum Alloy, Stable During Storage, and Its Application for Deoxidation of Low-Carbon Steel Outside the Furnace"

Proizvodstvo Chernykh Metallov (Production of Ferrous Metals - Collection of Works), No 75, Metallurgiya Press, 1970, pp 84-88

Translation: Manganese-aluminum alloys produced from primary aluminum (99% Al) and metallic type Mn_2 manganese (over 93% Mn), containing not over 27% or over 50% aluminum have long-term storage qualities..

Homogeneity and decreased liquation of the alloys is provided by careful mixing and pouring at temperatures 40-60° above the liquidus point of the alloy into massive molds.

The use of manganese-aluminum alloy for deoxidation of low-carbon non-aging steel outside the furnace increases the homogeneity of the chemical composition and constancy of properties from melt to melt and ingot to ingot; higher purity than

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KIRICHENKO, I. D., et al., Proizvodstvo Chernykh Metallov, No 75, Metallurgiya Press, 1970, pp 84-88

that of steel deoxidized by aluminum in the mold is characteristic. 2 figures; 1 table; 1 biblio. ref.

USSR UDC 669.187.046.51

KIRICHENKO, I. D., SOSIPATROV, V. T., and SMOLYARENKO, D. A., Central Scientific Research Institute of Ferrous Metallurgy imeni I. P. Bardin (TSNIICHM); Cherepovets Metallurgical Plant

"Complex Alloys for Steel Deoxidation"

Moscow, Izvestiya Vysshikh Uchebnych Zavedeniy, Chernaya Metallurgiya, No 1, 1971, pp 61-63

Abstract: The objective of this study was to determine both the composition and specifications for storage-stable aluminum-manganese alloys for use in steel deoxidation. Test data on specimens have shown that aluminum-manganese alloys melted with primary aluminum (> 99% Al) and $Mn2$ manganese metal (>93.0% Mn) containing not more than 27% or more than 50% Al were storage stable. In order to lower element liquation in alloys, it is necessary that the temperature of the well-stirred melt, prior to pouring, exceed that of the liquidus by a maximum of 100°C. It is suggested that aluminum-manganese alloys containing 27% Al and not more than 6% Fe be poured at about 1300°C and those with 54% Al -- at 1100°C. As compared to aluminum-deoxidized steel in either the ladle or in the ingot mold, steel deoxidized with aluminum-manganese alloy in the ladle is more completely deoxidized,

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KIRICHENKO, I. D., et al, Izvestiya Vysshikh Uchebnykh Zavedeniy, Chernaya Metallurgiya, No 1, 1971, pp 61-63

has fewer nonmetallic inclusions, features higher plasticity, excels in homogeneity of composition and has constant mechanical properties over a wide range of melts and ingots. The steel has a higher yield of both usable metal and high-grade metal products.

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Polymers and Polymerization

UDC 666.113/117

USSR

KLIMENTOVA, YU. P., KIRICHENKO, L. F., ASLANOVA, M. S., MYASNIKOV, A. A., CHERTOV, V. M., VYSOTSKIY, Z. A., Institute of Physical Chemistry, imeni L. V. Pisarzhevskiy, Ukr. Academy of Sciences; and All-Union Scientific-Research Institute of Fiberglass and Fibers

"Effect of Hydrothermal Treatment on the Texture of Silicon Fibers"

Leningrad, Zhurnal Prikladnoy Khimii, Vol 44, No 8, 1971, pp 1725-1730

Abstract: The texture of glass fibers strongly depends on their origin natural or basaltic glass. The texture of silicon glass is dealt with here, as it is affected by hydrothermal processing. A number of physical features are taken into account.

It is shown that with hydrothermal processing of fine-pore silicon fibers at 100-300°C, and autoclaving for 3-24 hours, increase in either of these factors will secure a substantial reduction in the size of micropores and in the specific surface of the fiber,

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USSR

KLIMENTOVA, YU. P., et al, Zhurnal Prikladnoy Khimii, Vol 44, No 8, 1971, pp 1725-1730

which means also that the volume of sorption space falls off. Hydrothermal processing at 200°C will produce a good number of ultrapores in silicon fibers, and these will be accessible to the water molecules, though not to those of benzene.

Precise data on textural characteristics of silicon fibers accompany the paper.

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1/2 008 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--SYNERESIS AND ISOELECTRIC POINT OF ACID HYDROGELS OF POLYSILICIC ACID -U-

AUTHOR-(03)-KLIMENTOVA, YU.P., KIRICHENKO, L.F., VYSOTSKIY, Z.Z.

COUNTRY OF INFO--USSR

SOURCE--UKR. KHIM. ZH. 1970, 36(1), 56-8

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--GEL, SILICA, HYDROGEN ION CONCENTRATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

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UNCLASSIFIED

2/2 008 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0123616

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RATE OF SYNERESIS OF POLYSILICIC ACID HYDROGELS AT PH 1-3.7 AND FOR SIO SUB2 CONCNS. OF 1.09-1.78 MOLES PER 1. AT 26.6DEGREES WAS DETD. AND IS SHOWN IN GRAPHS. FOR ALL CONCNS., THE RATE IS MIN. AT A PH OF SIMILAR TO 1.7.

FACILITY: INST. FIZ. KHIM. IM. PISARZHEVSKOGO, KIEV, USSR.

UNCLASSIFIED

1/3 019 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--CHROMATOSPECTROPHOTOMETRIC METHOD FOR THE QUANTITATIVE ESTIMATION OF THEOPHYLLINE, DIMEDROL, AND EPHEDRINE HYDROCHLORIDE IN DRUGS -U-
AUTHOR-(02)-KIRICHENKO, L.O., KAGAN, F.YU.

COUNTRY OF INFO--USSR

SOURCE--FARM. ZH. (KIEV) 1970, 25(1), 42-7

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES, CHEMISTRY

TOPIC TAGS--DRUG ANALYSIS, PROCESSED PLANT PRODUCT, CHROMATOGRAPHY, SPECTROMETRY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
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CIRC ACCESSION NO--AP0131321

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